

33898

Non-metallic inclusions ...

S/640/61/000/000/019/035  
D205/D302

containing Zr, dendritic non-stoichiometric zirconium monocarbide is the only one observed. There are 4 figures and 5 references: 1 Soviet-bloc and 4 non-Soviet-bloc. The reference to the English-language publication reads as follows: R. F. Dickerson, et al., J. Metals, 8, 4, 456-460 (1956).

X

Card 2/2

S/137/62/000/006/066/163  
A052/A101

AUTHORS: Virgil'yev, Yu. S., Gruzin, P. L., Popov, I. V.

TITLE: An investigation by means of radioactive isotopes of the behavior of small calcium additions in the process of smelting nickel-chromium alloys

PERIODICAL: Referativnyy zhurnal, Metallurgiya, no. 6, 1962, 29, abstract 6G219  
(In collection: "Metallurgiya i metalloved. chist. metallov".  
Moscow, Gosatomizdat, no. 3, 1961, 216 - 224)

TEXT: When investigating by means of radioactive isotopes ( $\text{Ca}^{45}$ ) under laboratory conditions the behavior of small Ca additions in the process of smelting Cr-Ni-alloys of XH80T (KhN80T) type it has been established that Ca spreads as a rule over the ingot irregularly. Keeping alloy in a molten state contributes to a more regular distribution of Ca. The latter can be present both in non-metallic inclusions and in a solid solution, whereby the Ca content in the solution decreases sharply with the increase of the time the metal is kept in a molten state. For example, in an alloy kept after reduction during 20 minutes the amount of non-metallic inclusions has decreased approximately 6 times and

Card 1/2

An investigation by means of...

S/137/62/000/006/066/163  
AC52/A101

their C content by more than 10,000. The kinetics data point to a speedy removal of Ca from the fusion in the process of smelting, whereby this removal proceeds most intensively in the first minutes after Ca precipitation. The amount of non-metallic inclusions and their Ca content decrease in the process of smelting.

G. Svodtseva

[Abstracter's note: Complete translation]

✓

Card 2/2


S/137/62/000/009/011/033  
A006/A101

AUTHORS: Virgil'yev, Yu. S., Gruzin, P. L.

TITLE: Determining the coefficient of calcium diffusion into nickel-chrome alloy and commercial iron by the method of artificial radioactive isotopes

PERIODICAL: Referativnyy zhurnal, Metallurgiya, no. 9; 1962, 12, abstract 9I77  
(In collection: "Metallurgiya i metalloved. chist. metallov", no.3, Moscow, Gosatomizdat, 1961, 210 - 215)

TEXT: Diffusion of Ca into XH80T (KhN80T) Cr-Ni alloy and commercial Fe was studied with the use of  $\text{Ca}^{45}$  radioactive isotope.  $\text{Ca}^{45}$  was applied by rubbing-in pulverized CaO. Diffusion annealing was performed in a vacuum at  $950^{\circ}\text{C}$ . Integrated activity of the specimen was determined by removing consecutively separate layers. Activation energy  $Q_p = 91,000$  cal/mole and the pre-exponential factor  $D_0 = 460$   $\text{cm}^2/\text{sec}$  for Ca diffusion in the KhN80T alloy;  $Q = 66,000$  cal/mole and  $D_0 = 0.8$   $\text{cm}^2/\text{sec}$  for Ca diffusion in commercial Fe. The rate of Ca diffusion



Card 1/2

Determining the coefficient of...

S/137/62/000/009/011/033  
A006/A101

over the whole temperature range of the KhN80T alloy (up to 1,300°C) is several times below the Cr diffusion rate into the same alloy.

V. Srednogorska

[Abstracter's note: Complete translation]

Card 2/2

MIKHIN, Yu.I.; VINOGRADOV, Yu.A.; KUCHENKOVA, I.P.

Considering the texturing of a specimen in analyzing the intensity of the diffraction image from graphite carbon materials. Konstr. uglegraf. mat. no.1:274-280 '64.

Determining the specific weight of carbon graphite materials by the method of X-ray weakening. Ibid.:291-295 (MIRA 17:11)

VIRGIL'YEVA, V.A.

Bilateral air cyst of the larynx. Vest. oto-rin. 25 no.2:  
101-102 Mr-Apr '63. (MIRA 17:1)

1. Iz kliniki bolezney ukha, nosa i gorla (zav. - prof.  
I.B. Soldatov) Kuybyshevskogo meditsinskogo instituta.

GUSEVA, L.I., parent; VIRIN, L.I., student

Automatic circular hosiery machine for the manufacture of  
socks with tricolor jackard pattern. Tekst. prom. 24 no.5:  
1964 By '64 (MIRA 18:2)

L. Moskovskiy tekstil'nyy institut.



V. 58-100-100  
VIRGINSKIY, V., professor

Pioneer in science fiction. Tekh.mol.23 no.7:37-38 J1'55.  
(Odoevskii, Vladimir Fedorovich, 1803-1869) (MIRA 8:10)

VIRGINSKIY, V.

36814. Parovoz Cherpanovykh. K 115-letiyu so dlya otkrytiya N.-Tagil. Parovoy dorogi Cherpanovykh. Tekhnika--molodiezhi, 1949, No 11, c. 14

SO: Letopis' Zhurnal'ynkh Statey, Vol. 50, Moskva, 1949

VIRGINSKIY, V., kandidat istoricheskikh nauk

~~Against distorting the history of Russia's transportation system.~~  
Zhel.dor.transp. no.10:73-78 0'47. (MIRA 8:12)  
(Railroads--History)

WINGFIELD, J. .

... 2: 1

RUSSKIYE IZOBRETELNIYI CHEREPAN'Y I IKH ROL' V RAZVITII GORNIO-METALLURGICHESKOGO PROIZVODSTVA. MOSKVA, IZD-VO EN NIYE, 1952. 23 P. ILIUS. (VSEMOYUZNOYE OBSHCHESTVO PO RASPROSTRANENIU POLITICHESKIH I NAUCHNYKH ZNANIY. 1952, SERIYA 2, NO. 30)

(VIRGINSKIY, V.S., prof.

Book on the oldest Transportation Institute ("V.K.Obratzhev Institute of Railroad Transportation Engineers in Leningrad." Reviewed by V.S. Virginskii). Zhel.dor.transp. 42 no.11:92-94 N '60. (MIRA 13:11)  
(Leningrad--Railroad engineering--Study and teaching)

VIRGINSKIY, Viktor Semenovich; SAVEL'YEV, I.S., red.; KOZLOVSKAYA, M.D.,  
tekh.n.red.

[Creators of new machines and equipment in feudal Russia; lives and works of outstanding Russian inventors of the 18th and first half of the 19th century] Tvoitsy novoi tekhniki v krepostnoi Rossii; ocherki zhizni i deiatel'nosti vydaishchikh russkikh izobretatelei XVIII- per. pol XIX veka. Moskva, Gos. uchebno-pedagog. izd-vo M-va prosv. RSFSR, 1957. 365 p. (MIRA 11:5)  
(Inventors)

VIRGINSKIY, V. S.

USSR/Miscellaneous

Card 1/1 : Pub. 128 - 25/31

Authors : Virginsky, V. S.

Title : The important role of Cherepanov's family in the development of domestic machine construction industry

Periodical : Vest. mash. 10, 98-105, Oct 54

Abstract : A compilation of articles is given dealing with the biography of Cherepanov's family and its role in the development of domestic machine construction industry. Eleven references: 10 USSR (1833-1953). Tables; illustrations.

Institution : ...

Submitted : ...

VIRGINSKIY, V.S., doktor istoricheskikh nauk.

~~Significance of the Cherepanovs master mechanics in developing~~  
domestic machine building. Vest.mash. 34 no.10:98-105 0 '54.  
(MLBA 7:11)

(Machinery industry) (Locomotives)



VIRGINSKIY, Viktor Semenovich, doktor istoricheskikh nauk, professor;  
ISLANKINA, T.P., redaktor; FURMAN, G.V., tekhnicheskii redaktor

[George Stephenson, an outstanding English engineer and inventor;  
on the 175th anniversary of his birth] Dzhordzh Stefenson -  
vydaiushchiisia angliiskii inzhener-isobretatel'; k 175-letiu so  
dnia rozhdeniia. Moskva, Izd-vo "Znanie," 1956. 31 p. (Vsesoiuznoe  
obshchestvo po rasprostraneniui politicheskikh i nauchnykh znanii,  
Ser. 4, no.27) (MIRA 9:9)

(Stephenson, George, 1781-1848)

VIRGINSKIY, VIKTOR SEMENOVICH

Zamechatel'nye russkie izobretateli Frolovy.  
Moskva, Mashgiz, 1950. 150 (2) p. illus., facsim. (Iz istorii tekhniki)  
Bibliographical references included in "Primekhanii" (p.142-149)

Bibliography: p. 150-(151)

The Frolovs, outstanding Russian inventors.

DLC: T40.F7V5

SO: Manufacturing and Mechanical Engineering in the Soviet Union, Library  
of Congress, 1953.

VIRGINSKIY, VIKTOR SEMIOVICH

U/5  
917.662  
.0576

ZHIZN' I DEYATEL'NOST' RUSKIKH MEKNIKOV CHEREPANOVYKH (LIFE AND  
ACTIVITY OF THE RUSSIAN MECHANICS, THE CHEREPANOV) MOSKVA,  
AKADEMKNIGA, 1956.

315, (2) p. ILLUS., DIAGRS., FACSIMS., PORTS., TABLS.

AT HEAD OF TITLE: AKADEMIYA NAUK SSSR. INSTITUT ISTORI I YESTESTVOZNAI-  
YA I TEKHNIKI.

BIBLIOGRAPHY: p. 315-(316)

VIRGINSKIY, V.S, prof.

First drafts of the Great Trans-Siberian Railroad; from the past  
of Russian transportation. Zhel. dor. transp. 43 no. 1:92 Ja '61.  
(MIRA 14:4)

(Siberia--Railroads--History)

MATYUSHENKO, Dem'yan Yakovlevich; MATYUSHENKO, Margarita Dem'yanovna;  
VIRGINSKIY, V.S., retsenzent; KIBAL'CHICH, O.A., retsenzent;  
PREOBRAZHENSKIY, V.I., red.; USENKO, L.A., tekhn. red.

[Moscow - the Crimea; railroad guide] Moskva - Krym; zheleznodorozhnyi putevoditel'. Moskva, Transzheldorizdat, 1962. 103 p.  
(MIRA 15:12)

(Railroads--Guides)

VIRGINSKIY, Viktor Semenovich, prof.; SAVEL'YEV, I.S., red.;  
SMIRNOVA, Ye.V., red. kart; KOVALENKO, V.L., tekhn. red.

[Creators of new equipment in Russia during the serfdom period;  
bio; biographies of outstanding Russian inventors of the 18th  
and the first half of the 19th century] Tvortsy novoi tekhniki v  
kreposnoi Rossii; ocherki zhizni i deiatel'nosti vydaiushchikhsia  
russkikh izobretatelei XVIII - per. pol. XIX veka. Izd.2. Mo-  
skva, Uchpedgiz, 1962. 405 p. (MIRA 15:12)  
(Industrial arts)

VIRGINSKIY, V. S.

20040 VIRGINSKIY, V. S. Sozdатели pervogo russkogo parovoza. [Ye A. i M. Ye Cherepanov]. Nauka i zhizn', 1949, No. 5, s. 33-34.

SO: LETOPIS ZHURNAL STATEY, Vol. 27, Moskva, 1949.

VIRGINSKI<sup>7</sup>, VIKTOR SEMENOVICH.

Rozhdenie vozdukhoplavaniia. [The birth of air navigation.]. Moskva, Red. tekhn.-  
teoret. lit-ry, 1938. 116p. illus., ports. DLC: TL617.V5

SO: Soviet Transportation and Communications, A Bibliography, Library of Congress,  
Reference Department, Washington, 1952, Unclassified.



VIRGINSKIY, V. S., DR.

Transportation - Equipment and Supplies

First Russian plant for building transportation machinery. Vest. mash. 32 No. 5  
1952.

9. Monthly List of Russian Accessions, Library of Congress, October 1952 ~~1952~~, Uncl.

VIRGINSKIY, V. S., DR.

Machinery Industry.

First Russian plant for building transportation machinery,  
Vest Mash., 32, No. 5, 1952.

Monthly List of Russian Accessions, Library of  
Congress, October 1952. UNCLASSIFIED.

VIRGINSKIY, Viktor Semenovich.

The rise of the railroad industry in Russia up to the beginning of the 40's of the 19th century. Moskva, Gos. transp. zhel-dor. izd-vo, 1949. 272 p. maps. (50-31604)

1. Railroads-Russia-Hist.

VIRGINSKIY, Viktor Semenovich.

The beginning of the railroad industry in Russia, up to the forties of the 19th century.  
Moskva. Pravda. 1949. 31 p. (50-35466)

1. Railroads-Russia.-Hist.

VINOGRADY, Viktor Semenovich

Technology

Russian inventors, the Cherepanov family and their role in the development of the metal mining industry Moskva, Znanie, 1952.

Monthly List of Russian Accessions, Library of Congress August 1952. Unclassified.

VITOLDSON, VILTOR Tikhonovich

Technology

Distinguished Russian inventors, the Frolov family. Moskva, Gos. nauchnotekhn. izd-vo mashinostroit. lit-ry, 1952.

Monthly List of Russian Accessions, Library of Congress September 1952. Unclassified.

VIRCHINSKIY, VIKTOR SEMENOVICH.

Rozhdenie vozdukhoplavaniia. Moskva, Red. tekhn. - teoret. lit-ry,  
1938. 116 p., illus., ports.

Title tr.: The birth of aeronautics.

TL617.V5

SO: Aeronautical Sciences and Aviation in the Soviet Union, Library of  
Congress, 1955.

Biblio rapical references include: "Kontinental" p. [Eol]-101;  
Biblio rapay: p. [Eol7-201. ALG:TF15.767

SO: Soviet transportation and communication, A bibliography, Library of Congress, Reference Department, Washington, 1961, unclassified.



1. VIRGINSKIY, V. S.
2. USSR (600)
4. Industrial Arts - History
7. Falsification of the history of technology in the post-war bourgeoisie literature.  
Izv. AN SSSR. Otd. tekhn. nauk no. 2, 1952

9. Monthly List of Russian Accessions, Library of Congress, January 1953. Unclassified.

VIR, S.

CZECHOSLOVAKIA

P. PAUBEL, V. LAJN, J. VANA and S. VYEL, Psychiatric Clinic of the Medical Faculty of Charles University and Central Biochemical Laboratory of the Teaching Hospital (Psychiatrická klinika lékařské fakulty Karlovy University a ústřední biochemická laborator fakultní nemocnice) Plzeň.

"Metabolism of Serotonin in Psychotics."

Prague, Czechoslovakian Psychiatry, Vol 58, No 6, 1962, pp 377-382.

Abstract [English summary modified]: Studies of 5-hydroxy-indoleacetic acid excretion in 32 psychotic patients and 30 normal controls. In 12 patients of the schizophrenic and manic-depressive group excretion was essentially identical with that in the controls. Iproniazid and electric shock therapy changed the excretion; the former in both directions, the latter increasing it. Serotonin administration decreased excretion in 10 schizophrenics. Flow scheme of tryptophan indole metabolites; 4 graphs; 4 Czech and 18 Western references.

1/1

VIRIJEVIC, L.

Determining coordinates by panoramic photograms in artillery. p. 52.  
(GLASHNIK, Vol. 11, No. 2, Feb. 1957)

SO: Monthly List of East European Accessions (EEAL) LC Vol. 6, No. 12, Dec. 1957  
Uncl.

VIRILAP, P. R.

PA 43/49T59

USSR/Engineering  
Industrial Equipment  
Electrical Equipment

Apr 49

"Conference of Workers of Factory Laboratories  
in Leningrad Enterprises" 4 pp

"Zavod Lab" Vol XV, No 4

Conference met 13 Dec 48, with representatives of 71 machine-building factories, 16 scientific research institutes, and 12 higher technical schools taking part. P. R. Virilap, director, Cen Lab, Elektrosila Factory imeni Kirov, submitted a report on methods by which factory laboratories aid production.

Elektrosila Factory is largest USSR electrical machine-building factory. M. Ya. Chizhik, director, Cen Lab, Factory imeni Stalin, submitted a report detailing important research in producing new types of high-quality steel with increased strength, capable of prolonged work at high temperatures. This will permit further technical progress in turbo construction. N. A. Dumlér, director, Cen Lab, Krasnogvardeyets Factory, submitted a report on economic leaders' aid to factory production. The factory has been equipped with new instruments and apparatus.

43/49T59

FTB

ACC NR: AP7603740

(N)

SOURCE CODE: UR/0314/67/000/001/0032/0034

AUTHOR: Virlich, E. E. (Engineer); Domashnev, A. D. (Doctor of technical sciences)

ORG: none

TITLE: Effect of adhesive film thickness on durability of adhesion bonds of metals in water

SOURCE: Khimicheskoye i neftyanoye mashinostroyeniye, no. 1, 1967, 32-34

TOPIC TAGS: adhesion, adhesive, adhesive bonding

ABSTRACT: In a study of adhesive bonds subject to lead stress and to action by liquid media, tests were made with various grades of steel, brass, and copper cylinders 20 mm in diameter. These had adhesive bonds of varying thickness, based on ED-5 epoxy and PEPA polyethylene-polyamine hardener heat treated for 4 hr at 120C. Test cylinders in a test stand and immersed with it in distilled water with pH 6.6, then stressed to rupture point. Thickness of adhesive joints, time from immersion to rupture, and breaking torsion were recorded and indicated on graphs. It was demonstrated that the thinner the film of adhesive, the stronger the bond. Durability coefficients are derived for various metals and for powdered adhesive fillers such as ZnO, Bi, and Al. The exact role of such fillers is not explained, but their effect on the durability coefficient is discussed and tabulated. Corundum burnishing of metal surfaces before joining improves adhesion. Burnished duralumin had optimal adhesion with a film 180--280- $\mu$  thick, whereas St-3 steel and brass

UDC: 621.792.3.001.6:663.6

Card 1/2

ACC NR: AP7003746

had optimal adhesion with film 250--500- $\mu$  thick. Adhesive less than 100-200- $\mu$  thick is not durable in water, but further experimentation is necessary to determine adhesion efficiency in more aggressive media, also the physicochemical interactions of metals with epoxy adhesives. Orig. art. has: 4 formulas, 1 table, and 5 figures.

SUB CODE: 11/ SUBM DATE: none/ ORIG REF: 003/ OTH REF: 003

Card

2/2

VIRIN, A.Ya.

Experience in teaching mechanical engineering in the eighth grade.  
Politekh. obuch. no.7:15-18 Jl '59. (MIRA 12:9)

1.Srednyaya shkola No.27, Smolensk.  
(Smolensk--Mechanical engineering--Study and teaching)

VIRIN, D. [Viryn, D.<sup>1</sup>, zhurnalist (Khar'kov)

Scientist's luck. Nauka i zhyttia 11 no.7:41 42 J1 :61.  
(MIRA 14:8)

(Corn(Maize))



SHISHAKOV, V.A.; STAPENYKINA, I.A. (Yaroslavl'); GUBIN, P.A. (Leningrad);  
VIRIN, A.Ya. (Smolensk)

Schools and planetariums. Fiz. v shkole 23 no.3:49-54, My-Je  
'63. (MIRA 16:12)

1. Predsedatel' uchebno-metodicheskoy sekcii Moskovskogo planetariya (for Shishakov).

RAFAL'SON, D.I., kand.med.nauk; RABINOVICH, S.I., nauchnyy sotrudnik (Leningrad); Logvinova, O.K. (Irkutsk); Okorokov, N.I.; VIRIN, I.Ya. (Smolenska); GIKHMAN, S.I., kand.med.nauk (Kiyev).

Acceleration of the regeneration of blood in donors in various cities of the Soviet Union following use of the preparation Hemoglobin 4. Akt. vop.perel.krovi no.4:15-18 '55. (MIRA 13:1)

1. Donorskiy otdel i laboratoriya sukhikh preparatov krovi (zav. laboratoriyey - doktor med.nauk L.G. Bogomolova) Leningradskogo instituta perelivaniya krovi.

(HEMOPOIETIC SYSTEM)

BREMENER, S.M.; VIRIN, I.Ya.; ZUBKOVA, Ye.I.; ROGOVA, K.P.

Metabolism of vitamins B<sub>1</sub>, B<sub>2</sub>, B<sub>6</sub>, C, PP, and of pantothenic acid  
in patients with stomach cancer. Vop. onk. 11 no.12:21-2' '65.

(MIRA 19:1)

1. Iz Gosudarstvennogo instituta vitaminologii Ministerstva  
zdravookhraneniya SSSR (dir. - kand. biol. nauk M.I. Smirnov) i  
Gosudarstvennogo onkologicheskogo instituta imeni Gertsena (dir. -  
prof. A.N. Novikov), Moskva.

VIRIN, L.I.; SAFIN, Yu.A.; TREGER, Yu.A.; DZHAGATSPANYAN, R.V.

Mass spectra and structure of some allyl derivatives. Zhur.fiz.  
khim. 39 no.11:2824-2826 N '65.

(MIRA 18:12)

VIRIN, L.I.; BUSHINSKAYA, L.M.; DZHAGATSPANYAN, R.V.

Analysis of methallyl chloride by gas-liquid chromatography.

Zav.lab. 29 no.11:1301-1302 '63.

(MIRA 16:12)

5(2)

SOV/80-32-5-21/52

AUTHOR: Virin, L.I.

TITLE: The Investigation of the Oxidation Process of Aluminum Powder in Water-Alcohol Solutions

PERIODICAL: Zhurnal prikladnoy khimii, 1959, Vol 32, Nr 5, pp 1050-1054 (USSR)

ABSTRACT: Aluminum powder is oxidized in boiling water-alcohol solutions in order to obtain colored aluminum powders for decoration purposes. The alcohol slows down this reaction. The process is divided into three stages: the induction stage with slow separation of hydrogen at nearly constant rate; the kinetic stage with continuously increasing rate; the diffusion stage with decreasing rate and the ending of the reaction. The oxidation of the metal can be effected only by those water molecules which penetrate a fatty layer on its surface, so that the rate of reaction is determined by the rate of diffusion. The formed hydrogen bubbles tear off the fat particles and cause the reaction to proceed faster, so that the induction stage passes to the kinetic stage. Later on the surface is covered by a layer of hydrated aluminum oxide which slows down the reaction again. The thickness of the film depends on the initial concentration of the water. An increase

Card 1/2

SOV/80-32-5-21/52

The Investigation of the Oxidation Process of Aluminum Powder in Water-Alcohol Solutions

in the volume of the solution by 2-5 times reduces the duration of the reduction period, probably by dissolving the fatty film. In a mixture containing 35 weight% of water a film of anhydrous aluminum oxide is formed. A reduction of the water concentration in the solution leads to an increase of water in the film. At 20% water in the solution the film has the composition of bemite. Experiments with isopropyl alcohol and acetone dissolved in water have shown that these substance also slow down the reaction.

There are: 5 graphs, 1 table and 5 references, 3 of which are Soviet, 1 German and 1 French.

SUBMITTED: March 28, 1958

Card 2/2

VIRIN, M.Ya.

Lowering the cost of repair for each car. Zhel.dor.transp. 37 no.5:  
49-51 My '56. (MLRA 9:8)

1. Glavnyy bukhgalter vagonnoy sluzhby Moskovsko-Kursko-Donbasskoy  
dorogi.

(Railroads--Cars--Maintenance and repair)



GOL'DSHTEYN, A.I., inzh.; VIRKERMANN, R.B., inzh.

Preventing the overloading of motor cranes. Transl.stro1. 10  
no.3: (MIRA 13:6)  
(Cranes, derricks, etc.)

VIRKERMAN, R.G., otv. za vyp.

[Scientific and technical information; ceramic-perlite products] Nauchno-tekhnicheskaja informatsiia; keramoperlitovye izdeliia. Kiev, 1962. 12 p. (MIRA 17:1)

1. Akademiya budivnytstva i arkhitektury URSR. Instytut budivel'nykh materialiv i vyrobiv.

VIRIN, S. [Viryn, S.]

Under new conditions ("Cultivation with one's own machinery":  
collected articles. Reviewed by S. Viryn). Mekh.sil'.hosp. 9 no.11:  
31-32 N '58. (MIRA 11:12)  
(Agricultural machinery)

VIRI, IV, 1965

The twenty-year-old trade union adult education. Munka 15  
no.3:6-7 Mr 165.

1. Secretary General, Trade Union of Local Industry in 1965.  
Budapest.

VIRIZLAY, Gyula

Competition between brigades and certain individuals. Munka  
14 no. 2: 8-9 F '64.

1. Helyiipari es Varosgazdalkodasi Dolgozok Szakszervezete  
fotitkara.

VIRIZLAY, Gyula

New characteristics of the work of the Trade Union for Metallurgical Workers. Munka 8 no.12:4-5 D '58.

1. Kohasz Szakszervezet fotitkara.

VIRIZLAY, Gyula

Significance and experiences of social work. Munka 13 no.6:  
16-17 Jé '63.

1. Helyiipari Dolgozok Szakszervezete fotitkara.

BIRLENBAUM, Yo.I., kand. tekhn. nauk, nauchnyy sotrudnik; IL'CHIKOVA, K.N.,  
nauchnyy sotrudnik; VIKAR, E.A., nauchnyy sotrudnik

Physicomechanical properties and spinability of polymeric fibers.  
Tekst. prom. 24 no.7:31-35 J1 '64. (UKR 17:10)

1. Tsentral'nyy nauchno-issledovatel'skiy institut khimicheskoy  
promyshlennosti (TANIKhBI).



AKUMUSHKIN, I.I.; BARANOVA, Z.I.; BRODSKIY, K.A.; VIRKETIS, M.A.;  
VOLODCHENKO, N.I.; GALKIN, Yu.I.; GUR'YANOVA, Ye.F.; DOGAL'  
V.A.; D'YAKOV, A.M.; ZEVINA, G.B.; IVANOV, A.V.; KIR'YANOVA,  
Ye S.; KOPYAKOVA, Z.I.; KOLTUN, V.M.; KONZHUKOVA, Ye.D.;  
KOROTKEVICH, V.S.; KLYUGA, G.A.; LOZINA-LOZINSKIY, L.K.;  
LOMAKINA, N.B.; NAUMOV, D.V.; PERGAMENT, T.S.; RUSHTNYAK,  
V.V.; SAVEL'YEVA, T.S.; SKARLATO, O.A.; SOKOLOV, I.I.;  
STRELKOV, A.A.; TARASOV, N.I.; USHAKOV, P.V.; SHCHEDRINA, Z.G.  
YAKOVLEVA, A.M.; USHAKOV, P.V., obshchiy rukovoditel';  
PAVLOVSKIY, Ye.N., akademik, redaktor; STRELKOV, A.A. redaktor;  
BRODSKIY, K.A., redaktor; ARONS, R.A., tekhnicheskiy redaktor.

[Atlas of invertebrates of the Far East seas of the U.S.S.R.]  
Atlas bespozvonochnykh dal'nevostochnykh morei SSSR. Moskva,  
Izd-vo Akad.nauk SSSR, 1955. 240 p., 66 plates. (MLRA 8:10)

1. Akademiya nauk SSSR. Zoologicheskiy institut,  
(Soviet Far East--Invertebrates)

VIRKETIS, M.A. [deceased]; ZHADINA, T.G.

Brief characterization of the zooplakton in the coastal waters of  
Paramushir Island. Trudy Inst.ocean. 36:230-235 '59.  
(MIRA 15:4)

1. Zoologicheskii institut AN SSSR.  
(Paramushir Island region--Zooplakton)

VIRKH, Iza; DOLGOPYATOV, Yu.A., red.; ZLOBIN, M.V., tekhn. red.

[My experience in feeding cattle for milk] Moi opyt razdoia korov.  
Alma-Ata, Kazakhskoe gos. izd-vo, 1956. 13 p. (MIRA 11:7)

1. Doyarka kolkhoza imeni Malenkova, Kellorovskogo rayona,  
Kokchetavskoy oblasti (for Virkh).  
(Kazakhstan--Dairy cattle--Feeding and feeding stuffs)

SMULEVICH, A.B.; VIDMANOVA, L.N.; VIRKHOVSKAYA, T.V.; LEVIN, V.M.

Use of acepromazine in the treatment of mental patients. Zhur. nerv.  
i psikh. 61 no.6:890-895 '61. (MIRA 15:2)

1. Kafedra psikhiatrii (zav. - prof. A.V.Snezhnevskiy) Tsentral'nogo  
instituta usovershenstvovaniya vrachev i psikhonevrologicheskaya  
bol'nitsa imeni Gannushkina (glavnyy vrach V.N.Rybalka), Moskva.  
(ACEPROMAZINE) (MENTAL ILLNESS)

AUTHOR: Virko, I. Foreman in Charge of Industrial Training 27-58-6-34/35

TITLE: None given

PERIODICAL: Professional'no-Tekhnicheskoye Obrazovaniye, 1958, Nr 6,  
page 3 of cover (USSR)

ABSTRACT: Students of the Technical School Nr 10 in Brest have constructed many models of different railway bridges, junctions and so on.  
There is 1 photo.

ASSOCIATION: Tekhnicheskoye uchilishche N<sup>o</sup> 10, g. Brest (Technical School Nr 10, Brest)

Card 1/1 1. Models-Construction-Study and teaching 2. Education-USSR

LEVADNYI, N.K.; VIKKO, I.G., rel.

[Problems in physics with solutions; optics] Zadachnik  
po fizike s resheniyami; optika. [n.p.] Rostvuzizdat,  
1963. 89 p. (MIRA 17:8)

VAYSENBERG, Aleksandr Ovseyevich; KOZLOV, V.D., red.; VIRKO, I.G.,  
red.

[Mu-mesons] Miu - mezon. Moskva, Izd-vo "Nauka," 1964.  
399 p. (MIRA 17:7)

STAROSEL'SKAYA- NIKITINA, Ol'ga Andreyevna; DORFMAN, Ya.G., prof.,  
red.; VIRKO, I.G., red.; PLAKSHE, L.Yu., tekhn. red.

[Paul Langevin]Pol' Lanzheven. Pod red. IA.G.Dorfmana.  
Moskva, Fizmatgiz, 1962. 316 p. (MIRA 15:11)  
(Langevin, Paul, 1872-1946)



AL'PERT, Yakov L'vovich; GUREVICH, Aleksandr Viktorovich;  
PITAYEVSKIY, Lev Petrovich; SILIN, V.P., retsenzent;  
VIRKO, I.G., red.

[Artificial satellites in rarefied plasma] Iskusstven-  
nye sputniki v razrezhennoi plazme. Moskva, Izd-vo  
"Nauka," 1964. 382 p. (MIRA 17:6)

LANDAU, Lev Davydovich, akademik; LIFSHITS, Yevgeniy Mikhayilovich,  
prof.; VIRKO, I.G., red.

[Statistical physics] Statisticheskaya fizika. Izd.2., per-  
rer. Moskva, Nauka, 1964. 567 p. (MIRA 18:1)

LANDAU, Lev Davydovich, akademik; LIFSHITS, Yevgeniy Mikhaylovich,  
prof.; VIRKO, I.G., red.

[Mechanics] Mekhanika. Moskva, Nauka, 1965. 203 p.

[Theory of elasticity] Teoriya uprugosti. Moskva, Nauka,  
1965. 202 p.

(Moscow 1888)

MITROPOL'SKIY, Yuriy Alekseyevich; VIRKO, I.G., red.; KRYUCHKOVA,  
V.N., tekhn. red.

[Problems in the asymptotic theory of nonsteady-state  
oscillations] Problemy asimptoticheskoi teorii nesta-  
tsionarnykh kolebaniy. Moskva, Izd-vo "Nauka," 1964.  
431 p. (MIRA 17:3)

AGRANOVICH, Vladimir Moiseyevich; GINZBURG, Vitaliy Lazarevich;  
VIRKO, I.G., red.; RAYSKAYA, N.A., red.

[Crystal optics with allowance for spatial dispersion and  
excitation theory] Kristallooptika s uchetom prostranstvennoi  
dispersii i teorii eksitonov. Moskva, Nauka, 1965. 374 p.  
(MIRA 18:5)

KOMPANEYETS, Aleksandr Solomonovich; YIRKO, I.G., red.

[What is quantum mechanics?] Chto takoe kvantovaya me-  
khanika? Moskva, Nauka, 1964. 130 p. (MIRA 17:12)

SANIN, Aleksey Aleksandrovich; VIRKO, I.G., red...

[Electronic devices in nuclear physics] Elektronnye pri-  
bory iadernoi fiziki. Izd.2. Moskva, Nauka, 1964. 623 p.  
(MIRA 17:12)

DAVIDOV, Aleksandr Sergeyevich; VIRKO, I.G., red.; PLAKSHE, L.Yu.,  
tekhn. red.

[Quantum mechanics] Kvantovaya mekhanika. Moskva, Gos.  
izd-vo fiziko-matem. lit-ry, 1963. 748 p. (MIRA 16:7)  
(Quantum theory)



BURSHTEYN, Anatoliy Izrailovich; VIRKO, I.G., red.; YERMAKOVA, Ye.A.,  
tekhn. red.

[Physical principles of the design of semiconductor  
thermoelectric devices] Fizicheskie osnovy rascheta polupro-  
vodnikovykh termoelektricheskikh ustroystv. Moskva, Fizmatgiz,  
1962. 135 p. (MIRA 15:7)  
(Thermoelectricity) (Thermoelectric generators)

SKACHKOV, Sergey Vladimirovich; KONSTANTINOV, Leonard Vasil'yevich;  
STROGANOVA, Rimma Petrovna; YUROVA, Lidiya Nikolayevna;  
TOPORKOVA, Eleonora Petrovna; VIRKO, I.G., red.; AKSEL'ROD,  
I.Sh., tekhn. red.

[Problems in nuclear physics] Sbornik zadach po iadernoi fi-  
zike. Izd.2., perer. Moskva, Fizmatgiz, 1963. 222 p.  
(MIRA 16:8)

(Nuclear physics)

ZAYDEL', Aleksandr Natanovich; VIRKO, I.G., red.; OSTROVSKIY,  
Yu.I., red.

[Fundamentals of spectrum analysis] Osnovy spektral'nogo  
analiza. Moskva, Nauka, 1965. 322 p. (MIRA 18:4)

FEDOROV, Fedor Ivanovich; VIRKO, I.G., red.

[Theory of elastic waves in crystals] Teoriia uprugikh  
voln v kristallakh. Moskva, Nauka, 1965. 386 p.  
(MIRA 18:3)

*VIRKO, N.P.*  
VIRKO, N.P., kandidat tekhnicheskikh nauk; VIRKO, N.P., kandidat tekhnicheskikh nauk.

Durability and performance of end mills in cases of snift of the workpiece in relation to the cutter. [Trudy] TSNIITMASH no. 52:57-80 (MLRA 1989)  
'57.

(Milling machines)

Winaro, N. P.

Dissertation: "Investigation of the Effect of the Relative Position of Blank and Cutter on the Strength and Productivity of Hard-Alloy Face Cutters." Cand Tech Sci, Central Sci Res Inst of Technology and Machine Building, 31 May 54. Vechernnyay. Moskva, Moscow, 21 May 54.

SO: SUM 284, 26 Nov 1954

1971

AUTHOR: Levitskiy, S. M.; Vilko, V. F.

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ИЗДАНИЕ 1978 г.

1. 1980-1981

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"APPROVED FOR RELEASE: 09/01/2001

CIA-RDP86-00513R001860020013-0

APPROVED FOR RELEASE: 09/01/2001

CIA-RDP86-00513R001860020013-0"



SMIRNOVA, G.A.; VIRKUS, A.Yu.

Gas-liquid chromatography of methyl esters of higher fatty  
acids of lipid components of the Sendai virus. Vop. virus  
9 no.4:417-421 J1-Ag '64. (MIRA 18:7)

1. Institut virusologii imeni D.I. Ivanovskogo AMN SSSR, Moskva.

L 43922-66 FWT(1)  
ACC NR: AP6026932

SOURCE CODE: UR/0141/66/009/004/0691/0696

AUTHOR: Virko, V. F.; Levitskiy, S. M.

ORG: Kiev State University (Kiyevskiy gosudarstvennyy universitet)

TITLE: Nonlinear phenomena in plasma waveguide 25

SOURCE: IVUZ. Radiofizika, v. 9, no. 4, 1966, 691-696

TOPIC TAGS: plasma waveguide, waveguide propagation, ~~nonlinear~~, nonlinear plasma

ABSTRACT: Variations of parameters of a plasma waveguide depending on SHF-signal power were investigated; these variations were caused by an increased electron concentration in the plasma which resulted from an additional gas ionization by the SHF field. The experimental outfit used had been described by one of the authors in IVUZ. Radiofizika, no. 4, 1961, 1078. An oscillogram shows shortening of the wavelength along the plasma wavoguide: the wavelength rapidly shortens to the point of the plasma break where the phase velocity vanishes. It was found that the parameters of the wave propagating in the plasma waveguide substantially depend on the power of this wave. When the SHF signal power is commensurate with the power sustaining the plasma, both the attenuation and the phase velocity appreciably vary in the waveguide. As the signal power increases, the attenuation decreases and

UDC: 621.372.853.32

Card 1/2

L 43922-66

ACC NR: AP6026932

the phase velocity increases, their values changing along the waveguide length. When the SHF signal is applied, all the above nonlinear effects develop during a few microseconds. These results are in good agreement with those obtained by various Soviet and Western researchers (references given). Orig. art. has: 5 figures and 1 formula. [03]

SUB CODE: 20, 09 / SUBM DATE: 04Jul65 / ORIG REF: 010 / OTH REF: 001 / ATD PRESS:

5060

Card 2/2

*gjk*

VIRKUS, M.

Fresh vegetables for Tallinn restaurants. Obshchestv. pit. no. 4:21  
Ap '59. (MIRA 12:6)

1. Direktor teplichno-parnikovogo khozyaystva, Tallinn.  
(Tallinn--Vegetable gardening)

L 10184-66 EWT(m)/ETC/EWG(m) DS/RM  
ACC NR: AP5028482 SOURCE CODE: UR/0286/65/000/020/0065/0065  
AUTHORS: Rogovin, Z. A.; Virnik, A. D.; Sergeyeva, L. M.  
ORG: none  
TITLE: Method for obtaining cation-exchange materials. Class 39, No. 175648  
SOURCE: Byulleten' izobreteniy i tovarnykh znakov, no. 20, 1965, 65  
TOPIC TAGS: ion exchanger, ion exchange resin, ion exchange, polymer, cation ex-  
changer  
ABSTRACT: This Author Certificate presents a method for obtaining cation-exchange  
materials by treating polyvinylalcohol or products derived from the latter with  
polyfunctional acids. To obtain thermally and chemically stable materials mono- and  
di-(3,6,8-trisulfo-1-naphthylamino) derivatives of chlorotriazines are used as poly-  
functional acids.  
SUB CODE: 11, 07/ SUBM DATE: 19Jun63  
Card 1/1 UDC: 661.183.123.2:678.744.72

(A) L 10939-56 EWT(1)/EWA(1)/EWT(m)/EWP(1)/T/EWA(b)-2 WW/JK/RM  
 ACC NR: AP6002540 SOURCE CODE: UR/0286/65/000/023/0041/0041-  
 INVENTOR: Rogovin, Z. A.; Virnik, A. D.; Sidel'kovskaya, F. P.; Mal'tseva, T. A.;  
 Ibragimov, F. 44155  
 ORG: none  
 TITLE: Manufacture of copolymer end products. Class 29, No. 176661  
 SOURCE: Byulleten' izobreteniy i tovarnykh znakov, no. 23, 1965, 41  
 TOPIC TAGS: graft copolymer, bactericide, copolymer, polymer, synthetic material  
 ABSTRACT: An Author Certificate has been issued for a method for manufacturing  
 end products with bactericidal properties from copolymers prepared by grafting  
 synthetic polymers (unspecified) to natural polymers, such as cellulose. The  
 method involves treatment of the products with iodine solution. [80]  
 SUB CODE: 11, 07 SUBM DATE: 23Jun64/ ATD PRESS: 4/70

Card 1/1

UDC: 677 494 7.-13:661.728.3-139

KHOMIAKOV, R.P.; PEREMZHUK, M.A.; VIRNIK, A.D.; ROGOVIN, Z.A.

Synthesis of dialdehyde and dicarbonyl dextrans. Vysokom. soed. 7 no.6:  
1030-1034 Ja '65. (MIRA 18:9)

1. Moskovskiy tekstil'nyy institut.

KHOMYAKOV, K.I.; VIRNIK, A.D.; USHAKOV, S.N. [deceased]; ROGOVIN, Z.A.;  
Principal participants: FEMENZHIK, M.A.

Synthesis of polymeric medicinal compounds based on dextran derivatives.  
Vysokom. soed. 7 no.6:1035-1040 Je '65. (MIRA 18:9)

1. Moskovskiy tekstil'nyy institut.



BALABAYEVA, M.D.; SHARKOVA, Ye.F.; ZHBANKOV, R.G.; VIRNIK, A.D.; ROGOVIN, Z.A.

Infrared spectroscopy method of studying the structure of  
some graft copolymers of cellulose. Vysokom.soed. 7  
no.10:1763-1766 0 '65. (MIRA 18:11)

1. Moskovskiy tekstil'nyy institut.

SHARKOVA, Ye. S.; VIKHIL, A. O.; RUDOVIN, V. A.

Synthesis of cellulose ethers containing a double bond, and  
their polymer analog conversions. Izv. vyz. ucheb. zav.; khim.  
i khim. tekhn. 8 no.3:465-468 '65. (MIRA 18:10)

I. Moskovskiy tekhnicheskii institut, kafedra khimicheskikh  
volokon.

A 1.9738-66 EWT(m)/EWP(j)/T RPL WW/RM  
 ACC NR: AP5026428 SOURCE CODE: UR/0153/65/008/004/0651/0654  
 AUTHOR: Mal'tseva, T. A.; Snezhko, D. L.; Virnik, A. D.; Rogovin, Z. A. 41  
 ORG: Department of Synthetic Fibers, Moscow Textile Institute (Kafedra khimicheskikh volokon, Moskovskiy tekstil'nyy institut)  
 TITLE: Synthesis of graft copolymers of cellulose and polyacrylic acid 1  
 SOURCE: IVUZ. Khimiya i khimicheskaya tekhnologiya, v. 8, no. 4, 1965, 651-654  
 TOPIC TAGS: graft copolymer, acrylic acid, cellulose plastic, *organic synthetic process*  
 ABSTRACT: In the laboratory of the authors, a new method was recently developed for synthesizing graft copolymers of cellulose and synthetic polymers. It consists in the preliminary introduction of peroxide groups into the polymer macromolecule in  $\text{Fe}^{2+}/\text{H}_2\text{O}_2$  and  $\text{Fe}^{3+}/\text{H}_2\text{O}_2$  redox systems. Subsequent decomposition of these peroxide groups in the presence of  $\text{Fe}^{2+}$  ions produces macroradicals which initiate the growth of the chain. The authors studied the conditions of this process and determined the effect of various factors ( $\text{FeSO}_4$  and  $\text{H}_2\text{O}_2$  concentration, temperature of treatment with  $\text{H}_2\text{O}_2$ , grafting temperature, monomer concentration) on the composition of the graft copolymers formed. It was found that the content of grafted polyacrylic acid in the copolymer rises sharply as the  $\text{H}_2\text{O}_2$  concentration  
 UDC: 677.46  
 Card 1/2

L 9738-66

ACC NR: AP5026428

increases to 2.5%, and that when the  $\text{Fe}^{3+}/\text{H}_2\text{O}_2$  system is used, less concentrated  $\text{H}_2\text{O}_2$  solutions can be used than in the case of  $\text{Fe}^{2+}/\text{H}_2\text{O}_2$ . Orig. art. has: 4 tables.

SUB CODE: 11,07 / SUBM DATE: 11Jul64 / ORIG REF: 002

Card 2/2

MAL'TSEVA, T.A., aspirant; VIRNIK, A.D., starshiy nauchnyy sotrudnik;  
ROGOVIN, Z.A., prof.; SHCHEGLOVA, G.V., aspirant; VASHKOV, V.I., prof.

Antibacterial cellulose fibers and fabrics. Tekst. prom. 25  
no.4:15-17 Ap '65. (MIRA 18:5)

1. Moskovskiy tekstil'nyy institut (for Mal'tseva, Virnik,  
Rogovin). 2. Tsentral'nyy nauchno-issledovatel'skiy  
dezinfektsionnyy institut (for Shcheglova, Vashkov).

MAL'TSEVA, T.A., aspirant; VIRNIK, A.D., starshiy nauchnyy sotrudnik;  
ROGOVIN, Z.A., prof.; SHCHEGLOVA, G.V., aspirant; VASHKOV, V.I., prof.

Antimicrobial synthetic fibers and fabrics. Tekst. prom. 25  
no.9:31-32 S '65. (MIRA 18:10)

1. Moskovskiy tekstil'nyy institut (for Mal'tseva, Virnik,  
Rogovin). 2. Tsentral'nyy nauchno-issledovatel'skiy dezinfektsion-  
nyy institut (for Shcheglova). 3. Direktor Tsentral'nogo nauchno-  
issledovatel'skogo dezinfektsionnogo instituta (for Vashkov).

VIRNIK, A.D., inzh.

Reaction of reactive dyes with  $\alpha$ -amino acids. Izv.vys.ucheb.zav.;  
tekh.leg.prom. no.5:40-43 '60. (MIRA 13:11)

1. Moskovskiy tekstil'nyy institut. Rekomendovana kafedroy organicheskoy  
khimii i khimii krasiteley. (Amino acids)  
(Dyes and dyeing)

SHARKOVA, Ye.P.; VIRNIK, A.D. , ROGOVIN, A.A.; Prinitel'nye uchastnye:  
SHEVAROVA, K.Ye.

Polymer analog conversions of a graft copolymer of cellulose  
and polyglycidyl methacrylate. Vysokom.sped. 6 no. 5:951-956  
My '64. (MIRA 17:6)

1. Moskovskiy tekstil'nyy institut.



ACCESSION NR: AT4017406

S/0000/63/000/000/0032/0036

AUTHOR: Lishevskaya, M. O.; Virnik, A. D.; Rogovin, Z. A.

TITLE: Synthesis of new derivatives of cellulose and other polysaccharides.  
XXXI. Introduction of new functional groups into a macromolecule of modified cellulose containing aromatic amino groups

SOURCE: Tsellyuloza i yeye proizvodny\*ye, sbornik statey (Cellulose and its derivatives). Moscow, 1963, 32-36

TOPIC TAGS: cellulose, polysaccharide, modified cellulose, cellulose derivative

ABSTRACT: This work was undertaken to explore the possibility of the synthesis of iodine-, thiocyano-, oxime-, aldehyde-, sulfhydryl- and arylhydrazine-N',N''-disulfo- containing derivatives of cellulose, of which the one containing a sulfhydryl group is of particular interest since this group imparts cation exchange ability to polysaccharide derivatives. Cellulose was alkylated with 4-~~hydroxy~~-ethylsulfonylanilinesulfate and diazotized, after which the product was: a) treated at 40C for 24 hrs. with aqueous solutions of KI (2.5-20%) to yield a product with 13.7% I; b) treated at room temperature for 24 hrs. with KSCN and FeCl<sub>3</sub> to yield a product with 3.06% SCN; c) treated at room temperature for 1 hr. with

Card 1/2

ACCESSION NR: AT4017406

formaldoxime in the presence of  $\text{CuSO}_4$  and  $\text{Na}_2\text{SO}_3$  to yield a product with 1.97% N; d) treated at room temperature for 0.5-24 hrs. with 0.6 - 9%  $\text{Na}_2\text{S}_2$  to yield a product with 6.93% S and a cation exchange ability of 1.6 meq/g; e) treated at room temperature for 3 hrs. with 5%  $\text{Na}_2\text{SO}_3$  to yield a product with 5.9% S. Orig. art. has: 2 graphs and 10 structural formulas.

ASSOCIATION: Moskovskiy tekstil'nyy institut (Moscow Textile Institute)

SUBMITTED: 09Feb62

DATE ACQ: 06Jan64

ENCL: 00

SUB CODE: OC, MT

NO REF SOV: 007

OTHER: . 002

Card 2/2

SNEZHKO, D.L.; VIRNIK, A.D.; ROGOVIN, Z.A.

Synthesis of sulfo derivatives of cellulose. Zhur.prikl.  
khim. 37 no. 5:1156-1158 My '64. (MIRA 17:7)

5.1370,5.3610

75667  
SOV/80-32-10-16/51

AUTHORS: Bogoslovskiy, B. M., ~~Y~~avorskiy, B. M., Virnik, A. D.

TITLE: Concerning the Application of Thermal Diffusion to  
Dye Refining

PERIODICAL: Zhurnal prikladnoy khimii, 1959, Vol 32, Nr 10,  
pp 2225-2229 (USSR)

ABSTRACT: The article reports on the results of preliminary studies on thermal diffusion refining of dyes. Laboratory tests were made in a metal apparatus (Fig. 2) and a glass apparatus built along the same lines. The investigated dye or dye mixture solutions (congo-red, acid blue, acid orange) of 2 to 4% concentration were introduced at the middle of the column heated by an electric coil with temperature regulated by a LATR-1 autotransformer. The concentration of the original solution as well as that of the samples drawn from the top and bottom of the column was determined colorimetrically with a type FEK-M photoelectric colorimeter and appropriate light filters.

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